BRUHAT BANGALORE MAHANAGARA PALIKE

Name Of Work	Package No.4 (Package consists of 3 works)
1	Improvements to roads,drains and footpath at 1st Block 5th ,6th BEL Layout 4th block HMT layout , Narasipura, Defence layout, NTI layout Main road and cross roads in Ward No.09 (Vidyaranyapura)
2	Improvements To Roads,Drains And Footpath At Iechs Layout,Jnaneshwari Layout,Anjaneyaswamy Layout ,Apc Layout Lakeshore Garden ,Sapthagari Layout ,Somanna Garden,Main Roads And Cross Roads In Ward No 09 (Vidyaranyapura)
3	Improvements To Roads And Drainsat Kodegehalli,Virupakshapura,Parvathamma Layout,Bullet Krishnappa Layout , Sir M V Layout ,Thindlu,Anamda Layout ,Canara Bank Layout Road And Cross Roads In Ward No 09 (Vidyaranyapura)

Bill of Quantities

Item No.	Description of Item	Unit	BOQ	BOQ Rate	BOQ Amount
1	Removing and resetting of footpath slab (Approved rate)	Sq-m	12645.31	258.50	3268812.635
2	Removing and resetting of kerb stones(Approved Rate)	m	2,305.60	129.80	299266.88
3	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead By Mechanical Means - Cement Concrete Grade M-15 & M-20 (P.No. 8, V-III, I.No. 2.8 A -of CSR 2021-22)	Cum	171.31	969.10	166016.521
4	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.(V-I, I.No 1.4.1,Page No-5 of PWD SR 2021-22)	Cum	8,723.61	334.40	2917175.184
5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates (V-I, No-2.1.3, P.No-15 of PWD SR 2021-22).	Cum	84.62	6,327.20	535407.664
6	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (V-1,P.No.17, I.No.2.4.2of PW, P&IWTD S.R 2021 22)	Cum	241.92	7,225.68	1748036.506
7	Supplying, Fitting and Placing TMT bar Fe 550 Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.NO 13.1 Page No 99, PWD SR 2021-22) Issue Rate dated on 07-04-2022	Tonne	17.81	1,13,661.90	2024318.439
8	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) (V-II,P.No. 9, I.No.5.4 of PW, P&IWTD S.R 2021-22)	Cum	136.69	5,964.20	815246.498
9	Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.).(V-2,P.No.44, I.No.8.19.1 of PW, P&IWTD S.R 2021-22)	Sqm	494.05	220.00	108691
10	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (V-II, I.No-6.33, P.No-17 of PWD SR 2021-22).	Sqm	94.00	1,173.70	110327.8

11	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregates (V-I, No-2.1.4, P.No-15 of PWD SR 2021-22).	Cum	36.16	6,518.60	235712.576
12	Providing and fixing precast reinforced cement concrete covering slabs of 10 cm thick made of M20 with OPC cement,with 20mm and down size graded granite metal coarse aggregate @0.70 mixed, Inculding providing and removing centering, shuttering, strutting propping etc., for edges of slabs with TMT steel (Fe500) cost of all materials, labour, all lead and lift, HOM of machinery, curing, including cost of reinforcement etc., complete as directed by the Engineer in charge of the work (Data Rate)	Sqm	3,924.30	2,072.00	8131149.6
13	Providing and fixing RCC precast cover slab of 230mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) (Data Rate)	Sqm	768.60	5,037.00	3871438.2
14	Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete as directed by the Engineer in Charge of the work (Approved Rate)	No's	1,617.00	507.00	819819
15	Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces (V-III No-8.10,P No-56 of PWD BCSR 2021-22)	Sqm	2,002.00	93.50	187187
16	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work (V-I, P.No-8, I No-1.12)	Cum	1,040.68	71.50	74408.62
17	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. PlantMix Method (V-III No-4.27 A,P No-24 of PWD BCSR 2021-22)	Cum	796.18	2,633.40	2096660.412
18	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70 kg per m2 using mechanical means. (V-III No-5.1 A,P No-29 of PWD BCSR 2021-22)	Sqm	3,980.91	48.40	192676.044
19	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom. (V-III No-5.3,P No-29 of PWD BCSR 2021-22)	Sqm	89,316.21	13.20	1178973.972
20	Dense Graded Bituminous Macadam Grading - II for traffic < 20 MSA Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (V-III No-5.12 C ,P No-33 of PWD BCSR 2021-22)	Cum	652.79	10,877.90	7100984.341
21	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.36, I.No.5.16C of PWD SR 2021-22).	Cum	3,050.42	12,684.10	38691832.32

22	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:5:10 Using 40 mm nominal size graded crushed coarse aggregates(V-I,I No-2.11, P.No-15of KPWD SR 2021-22)	Cum	122.25	5,473.60	669147.6
23	Providing and constructing un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, , primer, sealant , curing of concrete slabs for 14-days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete. as per the directions of the Engineer-in-charge of the work(V-III No-20.29,PNo-138 of PWD BCSR 2021-22)	Cum	122.25	7,520.70	919405.575
24	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes (V-III No-8.15,P No-57 of PWD BCSR 2021-22)	Sqm	2,371.10	525.80	1246724.38
25	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (V-III Page No.3, Item No.1.4 A of PWD SR 2021-22)	t.Km	12,498.28	105.60	1319818.368
				Total Construction Cost	**7,87,29,237.14**
				12% GST to Construction Cost	**94,47,508.46**
				Cost towards Preparation of DPR	**9,00,000.00**
				Cost towards PMC / Third Party inspection 1%	**9,00,000.00**
				Sub Total	**8,99,76,745.59**
				Miscellaneous and rounding off	**23,254.41**
				TOTAL	**9,00,00,000.00**

Executive Engineer,
Byatarayanapura Division
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